

REMARKS

In the Office Action, the Examiner indicated that claims 1 through 15 are pending in the application and the Examiner rejected all of the claims.

Rejection under 35 U.S.C. §102

On page 2 of the Office Action, the Examiner rejected claims 1-15 under 35 U.S.C. §102(b) as being anticipated by Girardot et al. ("Millau: an encoding format for efficient representation and exchange of XML over the web," Elsevier Science Publishers, pp. 1-21 (June 2000)) (hereinafter "Girardot").

Request for Reconsideration

Applicant asks the Office to reconsider the present rejection of the claims. Applicant has amended the claims essentially to reorganize them in such a way that their novelty is more apparent. Applicant submits that these amendments are non-substantive.

The claimed invention is directed to a client that operates with a parser or generator for both text and binary languages. The client uses a unique integer value interpretable in an index of elements, attributes and attribute values needed to describe a particular type of mark-up document. The index maps the unique integer value to a token associated with a predefined element, attribute or attribute value to enable a token based mark-up language to be handled, and maps the unique integer value to a string associated with a predefined element, attribute or attribute value to enable a string based mark up language to be handled. These elements are expressly claimed in each of the independent claims.

The claimed invention thus defines a parser or generator for both text and binary mark-up languages. XML is a text based mark-up language in which data is simply represented by *strings* of text. WBXML is a binary mark-up language in which data is encoded to produce *tokens* which represent the tag and attribute names. The claimed invention is a mechanism which facilitates the use of two mark-up languages through a single point of entry. The client is able to pass a single “unique integer value”, which can be converted into both tokens and strings, and vice versa.

Nothing in the prior art teaches or suggests a way to *map a unique integer value* to tokens and strings, because no one has developed a parser for tokens and strings. The claimed invention, however, provides a way to do this efficiently, in terms of performance and memory usage. The claimed invention stores one set of elements, attributes and values, to be able to parse both binary and text mark-up. This means a saving in memory and also a significant performance boost, as the tag ID maps directly to the index of the element, attribute or value. The claimed system using a string pool combined with the tag-to-index mapping, means clients of the parser are always using integers to match, so this is always going to be much faster than the SAX interface since SAX deals with strings.

The claimed invention provides a very efficient mechanism to parse both WBXML and XML using a single interface and a single data set that defines the XML/WBXML tokens. This is achieved by the way the tags are stored and by needing to have the elements, attributes and values defined once to be able to parse both WBXML and XML. Appendix B (see paragraphs [0146, 0147]) illustrates this, as does paragraph [0008]. By having the table as specified in the order that automatically maps the index to the WBXML token, the

maximum benefit of performance is achieved, since the element can be found just by using the WBXML token as the index to the element.

Girardot neither teaches nor suggests the use of a unique integer value interpretable as an index of elements, attributes, and attribute values needed to describe a particular type of mark-up document, where the index maps the unique integer value to a token and a string so that both string-based and token-based mark-up language can be handled. Girardot does show that it is possible to operate with both binary and text mark-up, using the SAX APIs. The Girardot system is not explained very well, but there is some conversion going on between the binary and text format so they can use the same SAX interface. Girardot is concerned with the compression of XML data in order to reduce the demand on the available bandwidth (section 1, Introduction, para. 1). With this aim in mind, the authors of Girardot developed a new encoding and streaming technique for XML structures called Millau.

Girardot notes that Millau is an extension of the WBXML (WAP Binary XML) format (section 3, The Millau Compression Model, para. 1). WBXML defines a binary representation of XML, as is well known. So Millau is a binary mark-up language akin to WBXML. In other words, data is encoded as tokens (as can be seen clearly from Table 1 in Girardot). This is confirmed by the authors in section 4, Millau, *API – Specification and Implementation*, first paragraph, where it is noted that, “The Millau format is designed to represent XML documents in a compact way using tokens to represent tags and attributes instead of strings”. As can be seen in section 4 of Girardot, the authors have developed two SAX parsers and two DOM parsers, to parse the Millau stream. Each parser operates directly on the binary Millau stream (see section 4.1, second para; section 4.2, second para;

section 4.3, second para; and section 4.5, first para). Thus, it is quite clear that Girardot only discloses a parser for a binary mark-up language. There is no disclosure of a parser which is for both binary and text based mark-up languages. Indeed, Girardot does not disclose a parser for text based mark-up languages.

Based on the above, it can therefore be seen that independent claims 1, 8 and 9, and all claims depending therefrom, are not anticipated by Girardot et al. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-15 under 35 USC §102.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any fees associated with this communication to applicant's Deposit Account No. 50-4364.

Respectfully submitted

March 4, 2010
Date

/Mark D. Simpson/
Mark D. Simpson, Esquire
Registration No. 32,942

SAUL EWING LLP
Centre Square West
1500 Market Street, 38th Floor
Philadelphia, PA 19102-2189
Telephone: 215 972 7880
Facsimile: 215 972 4169
Email: MSimpson@saul.com